

CLAIMS

What is claimed is:

1. A computer implemented method for monitoring, controlling, and managing the daily operations and activities of an oilfield and its wells by way of the internet, comprising:
monitoring production variables of said oilfield and its wells;
collecting data corresponding to said production variables of said oilfield and its wells; and
controlling production variables of said oilfield and its wells.
2. A computer implemented method for monitoring, controlling, and managing the daily operations and activities of an oilfield and its wells using a client computer, having at least a CPU, a display device, and an input device, and a server computer implementing said computer implemented method, comprising:
establishing a connection between a client computer and a server computer having said computer implemented method operating on said server;
authenticating access to said computer implemented method;
providing the client computer access to a polling process;
providing the client computer access to a control process;
providing the client computer access to a reporting process; and
controlling field equipment of at least one oilfield well.
3. The computer implemented method of claim 2 wherein a connection established between the client computer and said server computer is a connection by way of an internet.
4. The computer implemented method of claim 2 wherein authenticating access to said computer implemented method further comprises:
displaying a location for entry of a user name on the client computer;
displaying a location for entry of a password on the client computer;

displaying an authentication execution object on the client computer;
retrieving said user name and said password from the client computer upon execution of said authentication execution object;
validating said user name to at least one validation name stored on said server computer;
validating said password to at least one validation password corresponding to said one validation name stored on said server computer;
establishing a level of use based upon said at least one validated password;
disconnecting said established connection between said client computer and said server computer running said computer implemented method; and
re-establishing a connection between the client computer and said server computer using a dedicated port on said server computer where said user name is validated and said password is validated.

5. The computer implemented method of claim 2 wherein said polling process comprises:
displaying a well list on the client computer having at least one oil well definition;
displaying a poll type on the client computer having at least one type definition;
displaying a poll execution object on the client computer;
receiving a selected well definition from said well list upon execution of said poll execution object;
receiving a selected type definition from said type list upon execution of said poll execution object;
creating a query based upon said well definition and said type definition received from the client computer;
monitoring at least one piece of field equipment;
retrieving data corresponding to said query from field equipment monitored by said computer implemented method; and
displaying said data corresponding to said query on the client computer.

6. The computer implemented method of claim 5 wherein displaying said well list on the client computer further comprises:

displaying at least one well name for a selected well definition included in said well list on the client computer; and

displaying a selection object corresponding to each of said displayed well names, said selection object having a true or false state.

7. The computer implemented method of claim 6 wherein receiving a selected well definition from said well list includes receiving said well name corresponding to each selection object having a true state upon execution of said poll execution object.

8. The computer implemented method of claim 6 wherein retrieving data corresponding to said query from field equipment includes retrieving data for each well name corresponding to a selection object having a true state upon execution of said poll execution object.

9. The computer implemented method of claim 5 wherein said retrieved data corresponding to said query includes a well name, a time of query, a date of query, a current flow rate, a current actual pressure, a current differential pressure, a current temperature, a total production volume for the previous day, and an accumulated production volume for the year.

10. The computer implemented method of claim 2 wherein said step of providing the client computer access to a reporting process comprises providing the client computer access to historical data for each well monitored and controlled by the computer implemented method.

11. The computer implemented method of claim 2 wherein the step of providing the client computer access to a reporting process comprises:
displaying report criteria entry locations on the client computer for entry of desired report parameters;
retrieving said report parameters from the client computer;
creating a report with data within said report parameters; and
displaying said report on the client computer.

12. The computer implemented method of claim 2 wherein the step of providing the client computer access to a reporting process further comprises:
displaying a report type list on the client computer for selecting the type of data desired in a report;
displaying a well list on the client computer for selecting at least one well to include in said report;
displaying a start date location on the client computer for entry of a start date;
displaying an end date location on the client computer for entry of an end date;
displaying a report execution object on the client computer;
retrieving the selected report type from the report type list upon execution of said report execution object;
retrieving the selected well from the well list upon execution of said report execution object;
retrieving the start date entered in said start date location upon execution of said report execution object;
retrieving the end date entered in said end date location upon execution of said report execution object;
creating a query based upon the retrieved said selected report type, said selected well, said start date and said end date;
posting said query to a database containing the information necessary to respond to said query;
retrieving a result to said query from said database; and
displaying said result on the client computer.

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13. A system for controlling production process equipment whereby a client accesses control of said production process equipment using the Internet, comprising:
accessing a dedicated Internet port associated with a computer hosting a control system, wherein
said dedicated Internet port is assigned an Internet domain address;
activating said control system, said control system being activated by said Internet browser
device accessing said Internet domain address, wherein said control system prompts a
client for log-on information;
retrieving said log-on information from said client;
validating said log-on information, wherein said control system queries a client information
database for validating log-on information based on said log-on information from said
client;
accessing said Internet browser device, said control system connecting to said Internet browser
device using an Internet port in communication with said computer;
displaying a menu of options on said Internet browser device, wherein said computer controls
said menu of options;
selecting at least one of said options displayed on said Internet browser device.

14. The system of claim 13, wherein said Internet browser device is selected from the group consisting of a computer, a phone, a personal data assistant, a portable Internet browser, and a television.

15. The system of claim 13 wherein said control system includes a front program component a main program component.

16. A system for controlling field equipment using the Internet, comprising:
accessing an Internet domain address associated with a computer from an Internet browser
device, wherein said computer is part of a control system;
activating said control system;
issuing control commands through said Internet control device to said control system running on
said computer;
controlling field equipment, wherein said control system issues control commands to at least one
piece of field equipment in accordance with said control commands.

17. A system for monitoring production data in real-time using the Internet,
comprising:
accessing an Internet domain address associated with a computer from an Internet browser
device, wherein said computer is part of a monitoring system;
activating said monitoring system;
issuing monitoring commands through said Internet control device to said monitoring system
running on said computer;
retrieving real-time data from at least one piece of field equipment.

18. The system of claim 17, further comprising displaying said real-time data on said
Internet browser device.

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19. A system for controlling and monitoring production variables in a production process using the Internet, comprising:
accessing an Internet domain address associated with a computer from an Internet browser device;
querying said computer using said Internet browser device, wherein said computer retrieves data from at least one field equipment measurement device based on said query, said at least one field equipment measurement device in communication with said computer;
executing a control command using said Internet browser device, wherein said execution of said control command prompts said computer to control at least one piece of field equipment.

20. The system as in claim 19, further comprising displaying said data retrieved as a result of said query.